



Influenza Surveillance Update

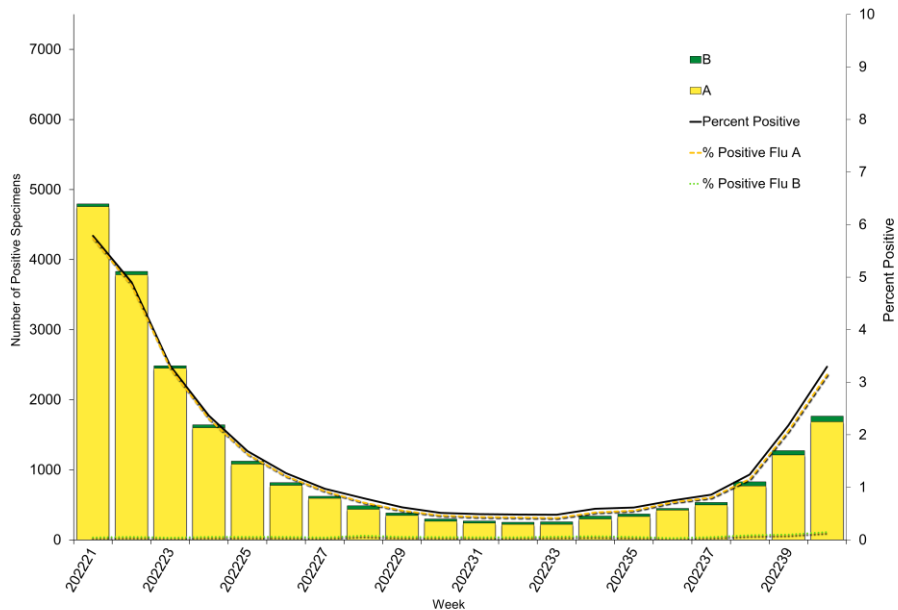
Lynnette Brammer, MPH

Advisory Committee on Immunization Practices

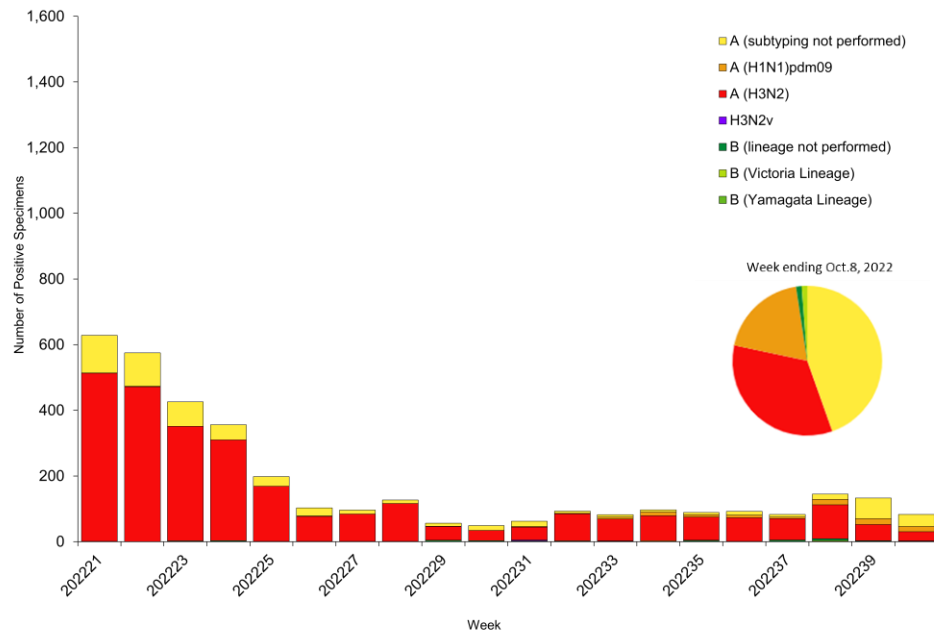
October 20, 2022

Influenza Positive Tests Reported to CDC by U.S. Clinical and Public Health Laboratories, May 22, 2022 – October 8, 2022

Clinical Laboratories

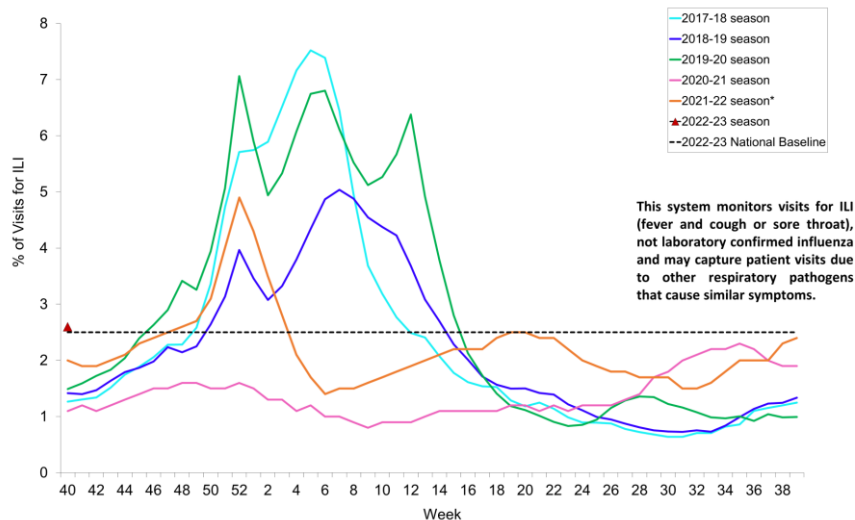


Public Health Laboratories

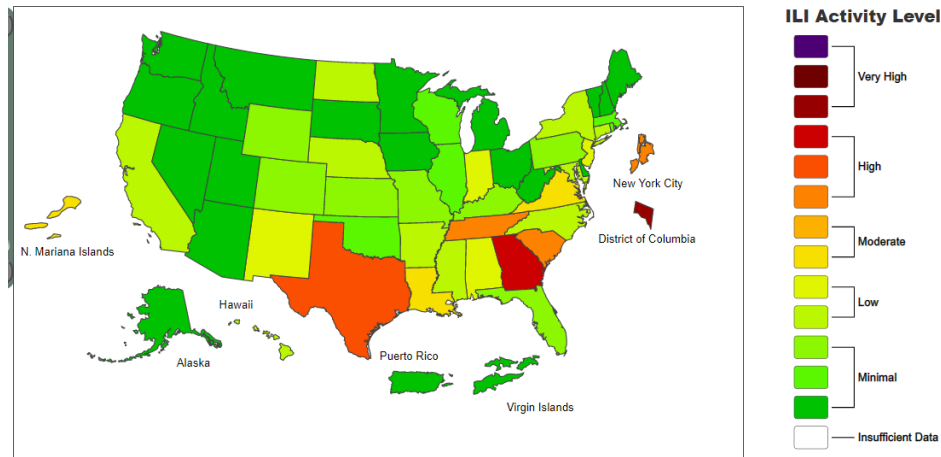


Percentage of Outpatient Visits for Respiratory Illness Reported By The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)

Percentage of Outpatient Visits for Respiratory Illness Reported By The U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet), Weekly National Summary, 2022-2023* and Selected Previous Seasons

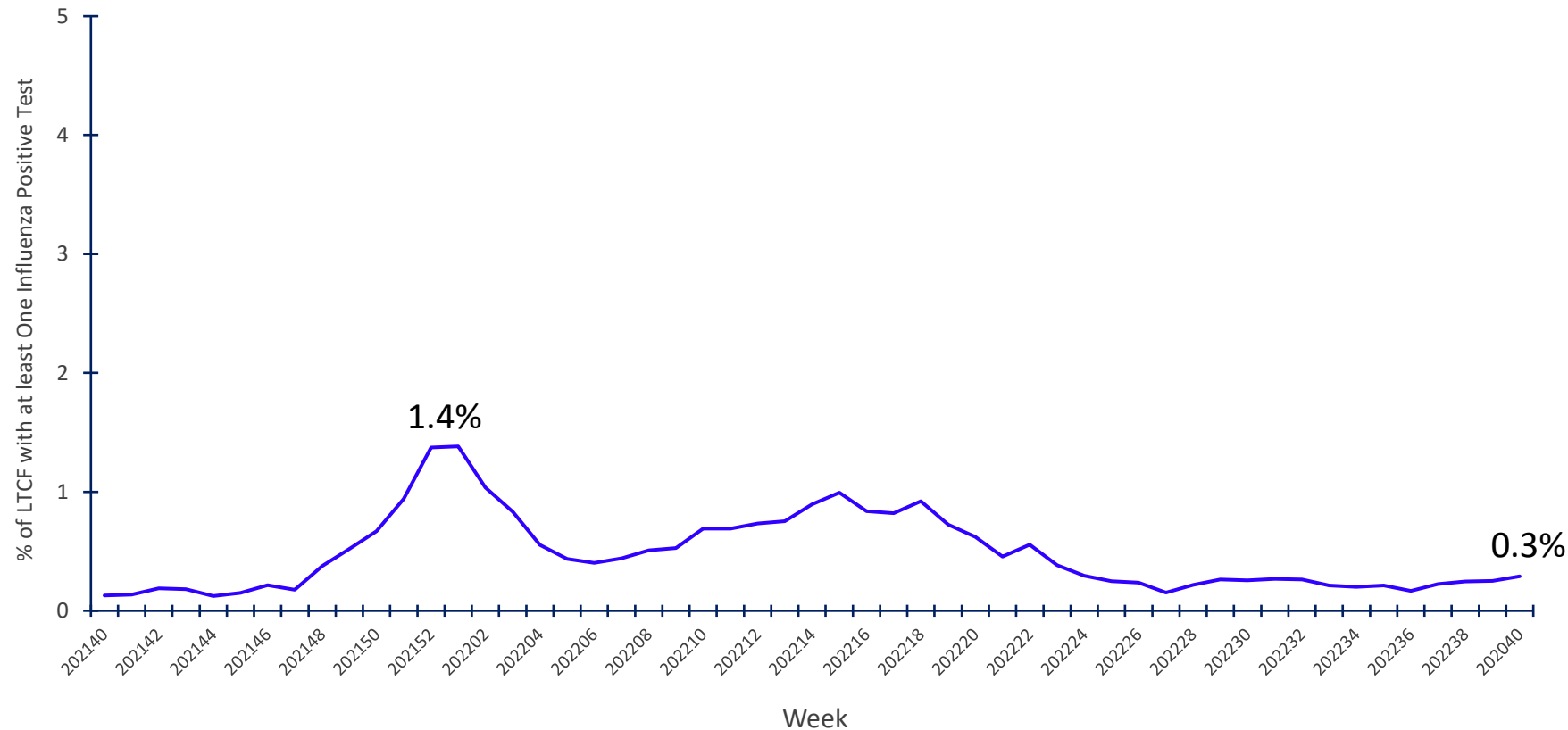


2022-23 Influenza Season Week 40 ending Oct 08, 2022

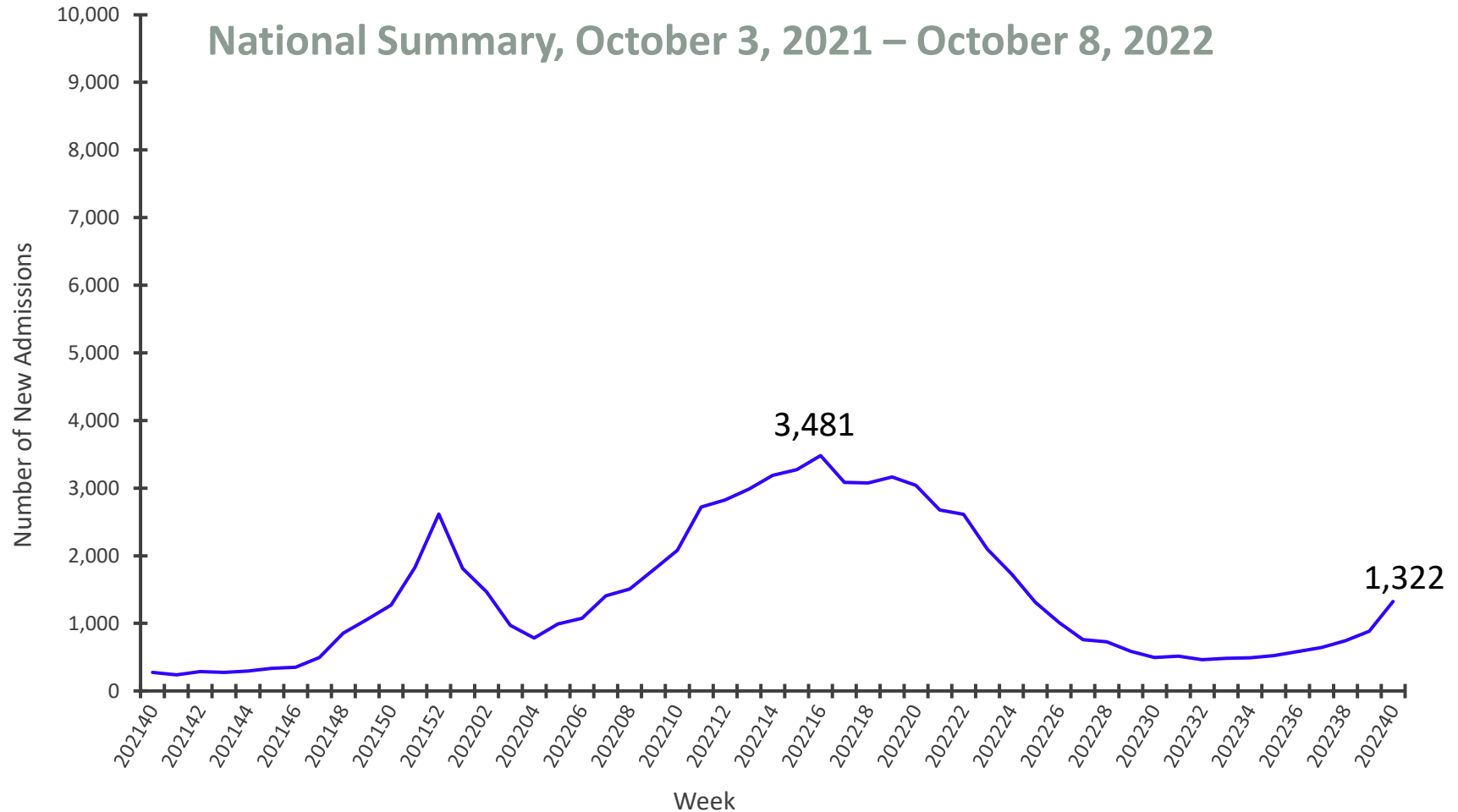


* Data through August 27, 2022; reported to CDC as of August 31, 2022.

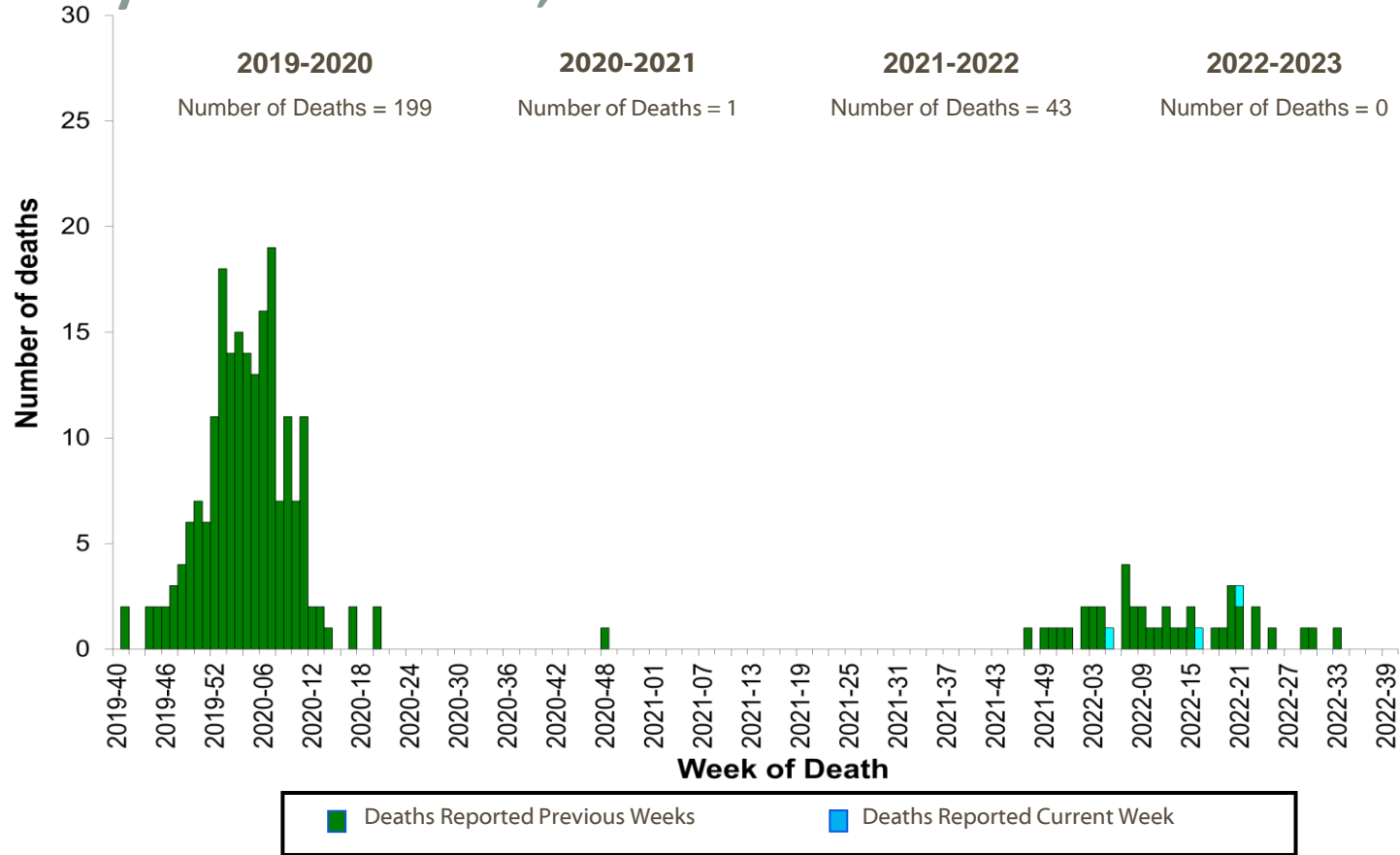
Percent of Long-term Care Facilities (LTCF) with at Least One Confirmed Influenza Positive Test among Residents, Reported to CDC National Healthcare Safety Network (NHSN), National Summary, October 4, 2021 – October 9, 2022



New Influenza Hospital Admissions Reported to HHS Protect, National Summary, October 3, 2021 – October 8, 2022



Influenza-Associated Pediatric Deaths by Week of Death, 2019-2020 to 2022-2023 Seasons



Summary

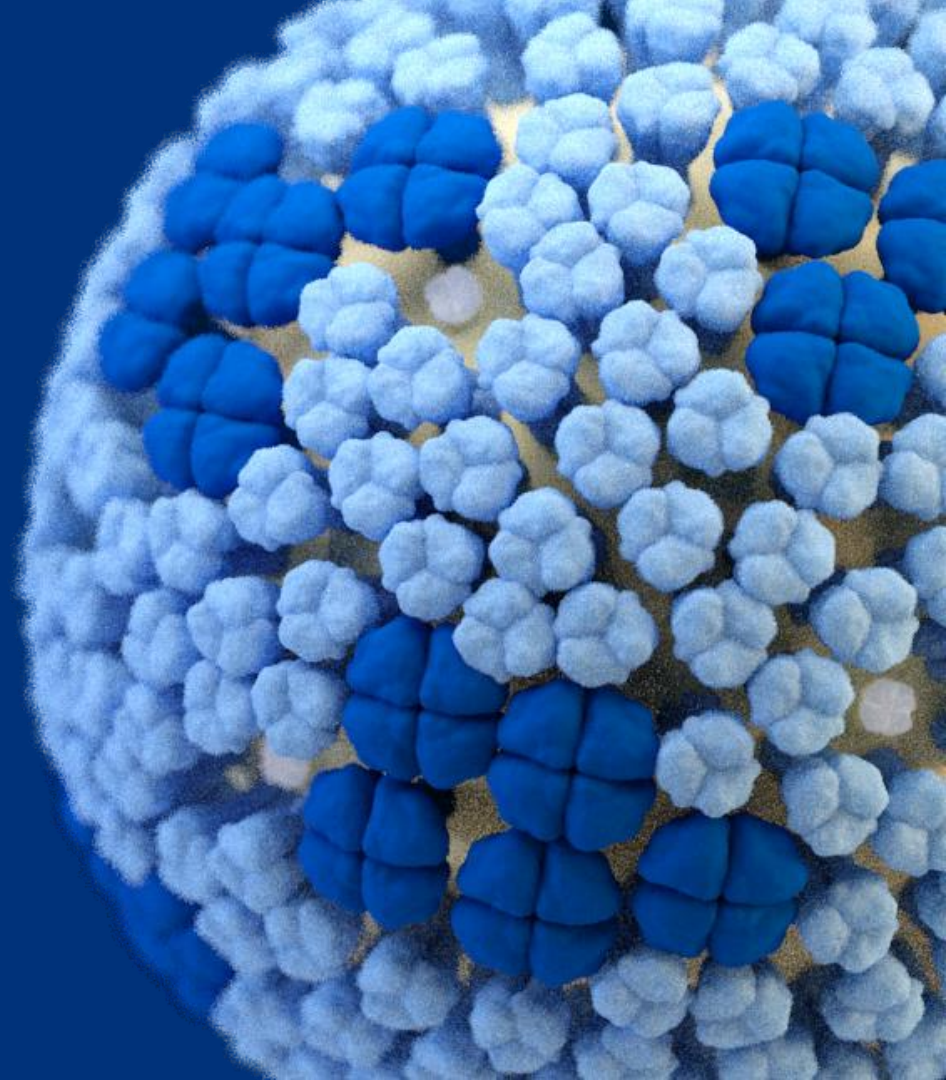
- Influenza activity remains low in the US overall, but is increasing
- Numbers are small, but so far, influenza A(H3N2) viruses are predominant in the US Too early to tell what viruses will be predominant for the season
- While 1 of the 4 vaccine components were updated for the Southern Hemisphere, the components selected for the 2022-23 Northern Hemisphere vaccine, at this time, look appropriate for our season

2022 Southern Hemisphere influenza surveillance in sentinel countries

Perrine Marcenac, PhD

Advisory Committee on Immunization
Practices

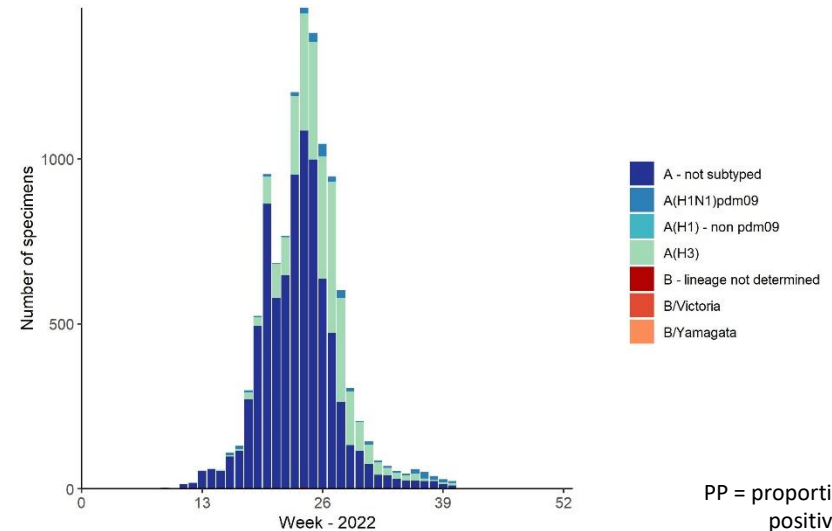
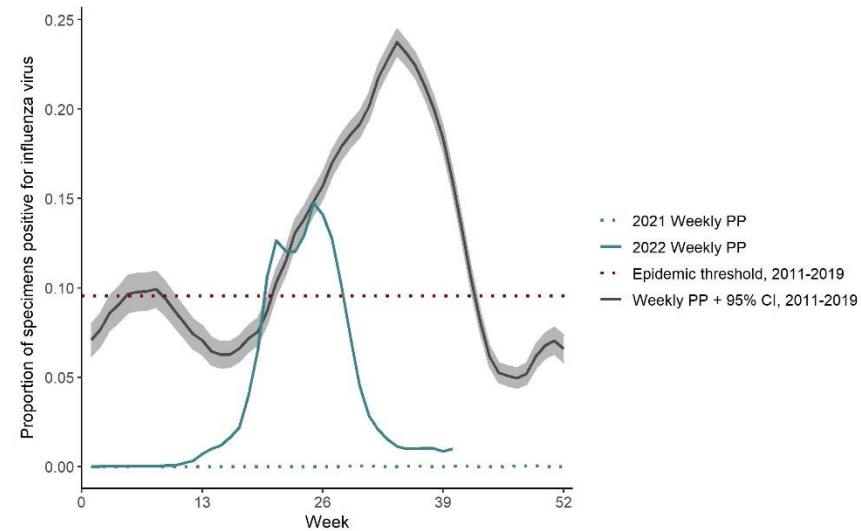
20 October 2022



Australia

- Early and shorter 2022 influenza season as compared to historic trends
- Influenza activity appears to be plateauing as of epi week 40
- In 2022, 99.7% of specimens have been influenza A, with H3 making up 91.3% of subtyped specimens

Subtype	Dominant Clade	Most Recent Collection Date
H1pdm09	6B.1A.5a.2	07/06/2022
H3	3C.2a1b.2a.2	07/10/2022
B Vic	V1A.3a.2	07/06/2022



PP = proportion positivity

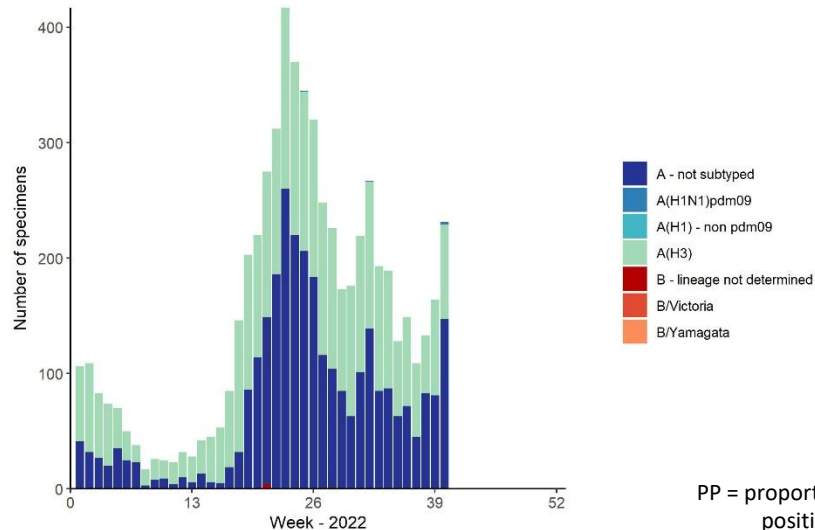
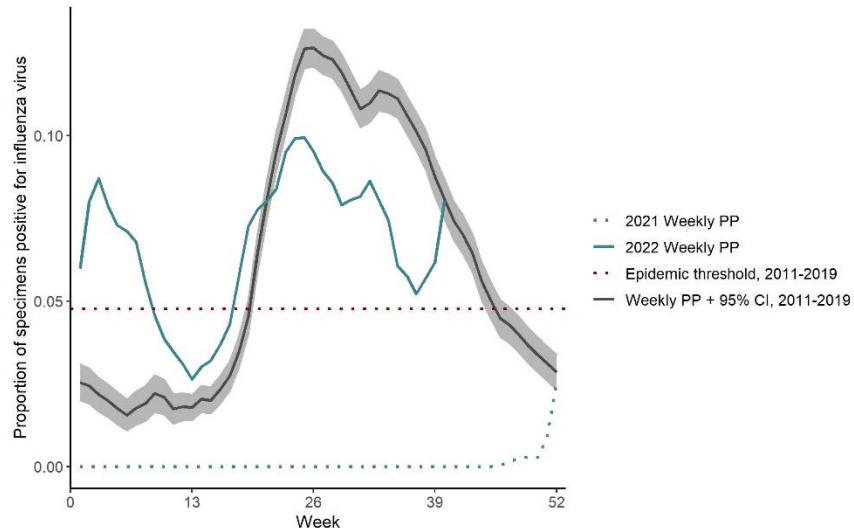
Australia

- Australia's WHO CC reports that of 2,570 isolates characterized for antigenic similarity to their corresponding vaccine components:
 - 92.4% influenza A(H1N1) isolates have been antigenically similar
 - 94.5% of influenza A(H3N2) isolates have been antigenically similar
 - All six influenza B/Victoria isolates have been antigenically similar
- Department of Health and Aged Care reports that VE is on the “lower end of the moderate range” from preliminary estimates in 2022

Chile

- Experienced both a NH and SH influenza seasonal pattern in 2022
- Activity increasing as of epi week 40
- Both peaks in 2022 have been predominantly influenza A (>99.9%), with H3 making up >99.8% of subtyped specimens

<u>Subtype</u>	<u>Dominant Clade</u>	<u>Most Recent Collection Date</u>
H1pdm09	N/A	N/A
H3	3C.2a1b.2a.2	06/08/2022
B Vic	N/A	N/A



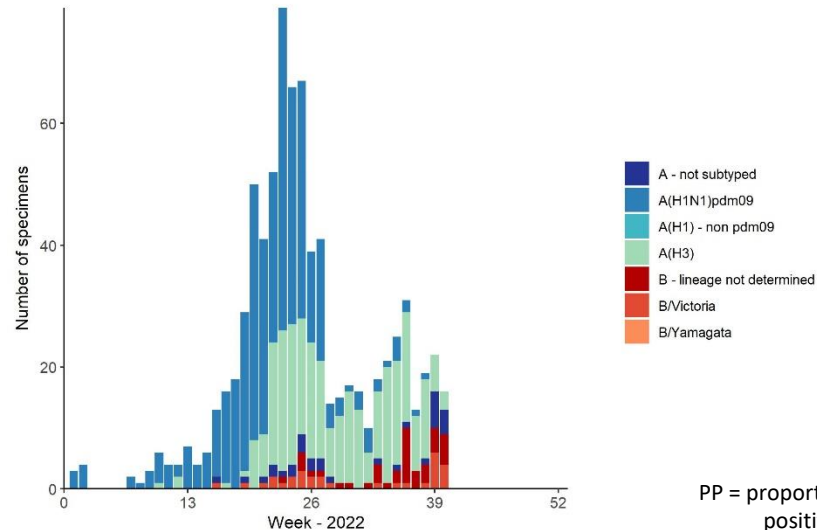
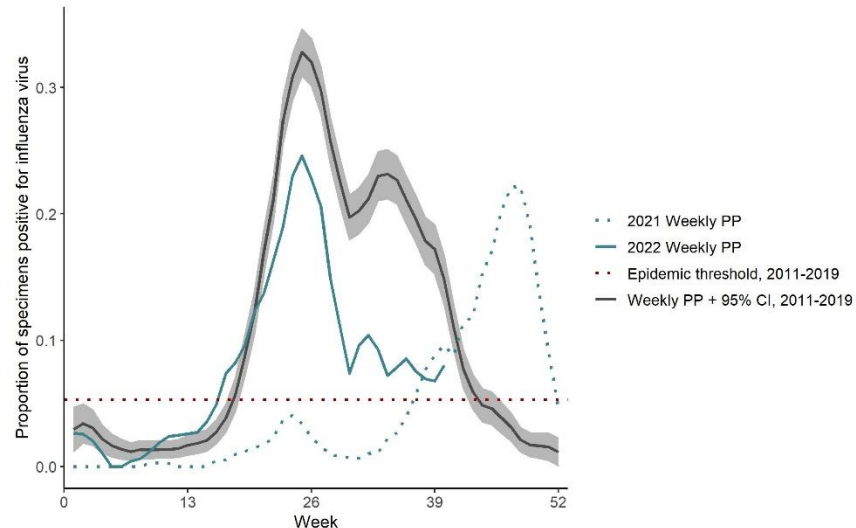
Chile

- 92.5% of persons in Chile's priority groups for influenza vaccination were vaccinated in 2022
- Data from severe acute respiratory infections (SARI) sentinel surveillance sites were submitted to PAHO's REVELAC-i and used to estimate vaccine effectiveness in preventing influenza-associated hospitalizations
- VE against influenza A(H3N2)-associated hospitalization was 49% (95% CI: 23%–67%)

South Africa

- 2022 influenza season aligning relatively well with historic trends
- Influenza A predominated during the first peak, making up 91.3% of tested specimens in 2022
 - 58.4% of subtyped specimens are A(H1N1)pdm09
 - 41.6% of subtyped specimens are A(H3)
- Influenza B is making up a larger proportion of specimens currently compared to during peak activity, with 100% of subtyped specimens being B/Victoria

Subtype	Dominant Clade	Most Recent Collection Date
H1pdm09	6B.1A.5a.2	07/08/2022
H3	3C.2a1b.2a.2	06/30/2022
B Vic	V1A.3a.2	07/22/2022



2022 Southern Hemisphere season summary

- Abnormal activity in 2021 and 2022 in several sentinel countries:
 - Shifted start and end periods
 - Changes in magnitude
- Influenza activity has resumed in these sentinel countries following changes in transmission during the COVID-19 pandemic
- H3 has predominated in most of these sentinel countries in 2022; however, South Africa has had significant circulation of A(H1N1) and B/Victoria viruses.

Acknowledgements

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- Anna Chard, ID *GIB*
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Questions?

For more information, contact CDC
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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

